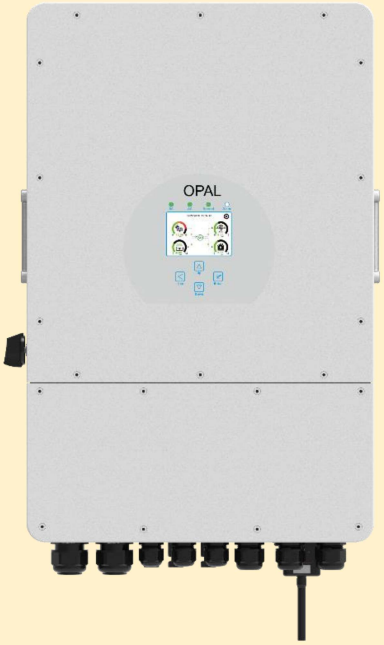
DATA SHEET

THREE PHASE HYBRID INVERTER

These 6kW, 8kW, 10kW and 12kW three phase hybrid inverter is perfect for use in both urban and rural area. It can operate as a grid connect inverter without battery or with battery. Ideally for places where electricity is high or where electricity prices are high in certain time of the day.

Opal-6K-3P-EU/Opal-8K-3P-EU
Opal10-3P-EU/Opal-12-3P-EU



FEATURES OF HYBRID INVERTER

- LCD — Colourful touch LCD, IP65 protection degree
- 4 — 4ms fast transfer from on-grid to off-grid mode, ensuing no disruption to any loads
- 6 — 6 time period setting for battery charging/discharging
- 16 — The hybrid inverters can be expanded up to 16 inverters
- 100 — 100%unbalance output each phase; Max. output up to 50% of rated power
- 240 — Able to take high DC charge & discharge current
- Frequency droop control for off grid micro-grid application
- Able to support storing energy from diesel generator
- AC/DC — Suitable for both DC or AC couple to retrofit existing solar system
- Unique Smart Load application and Grid peak shaving function
- Easy excess to system via either PC or phone App

Opal residential monitoring solution take great care to ensure that your PV system is in excellent operation throughout its entire life-cycle. This monitoring solution offer you details information of your power generating plant including daily, monthly, yearly energy and total energy etc, through wireless communication with your router to the internet by a smart WIFI plug. User can easily access to the monitoring page via PC web or phone APP. The cloud data will be kept in Europe and Singapore

Technical Specification

Three Phase Hybrid Inverter

Model	Opal-6K-3P-EU	Opal-8K-3P-EU	Opal-10K-3P-EU	Opal-12K-3P-EU
PV Input DC Rating				
No of MPPT for solar input	2/1 + 1		2/2 + 1	
Max DC input Power (Wp)	7,800Wp	10,400Wp	13,000Wp	15,600Wp
Rated PV Input Voltage (V)	550V (150V to 800V)			
PV MPPT voltage range (V)	200V to 650V			
Start-up DC Voltage (V)	150			
PV Input Current per MPPT (A)	13A + 13A		26A + 13A	
Battery Voltage range (V)	40V to 60V			
DC Max. Charging/ Discharging (A)	150A	190A	210A	240A
AC Rating				
Rated AC Output and UPS power	6,000W	8,000W	10,000W	12,000W
Max. Output AC Output power	6,600W	8,800W	11,000W	13,200W
Off-Grid Peak AC Power	12,000W for 10s	16,000W for 10s	20,000W for 10s	24,000W for 10s
AC Output rated Current	9.1A	12.1A	15.2A	18.2A
Max. AC Current	13.6A	18.2A	22.7A	27.3A
Max. Continuous AC pass-through	45.0A			
Output Voltage frequency	3L/N/PE 220/380Vac 230/400Vac, three phase 50/60Hz			
Current harmonic Distortion	THD<3% (Linear Load <1.5%)			
Power Factor	0.8 leading to 0.8 lagging			
Efficiency				
Max Efficiency	97.60%			
Euro Efficiency	97.00%			
MPPT Efficiency	99.90%			
Protections				
PV input lightning Protection	Integrated			
Anti-Islanding protection	Integrated			
PV String Input Reverse Polarity Protection	Integrated			
Insulation Resistor Detection	Integrated			
Residual Current monitoring Unit	Integrated			
Output Over Current Protection	Integrated			
Output Short Circuit Protection	Integrated			
Output Over Voltage Protection	Integrated			
Surge Protection	DC Type II/ AC Type II			
UPS Transfer Time	4mSec			
Certifications and Standards				
Grid Regulation	CEI 0-21, UNE217002, IEC61727, IEC62116, VDE 4105, VDE 0126-1-1			
Safety standard/ EMC	IEC62109-1/-2, IEC61000-6-1/2/3/4			
General				
Operating Temperature Range °C	-45 to 60°C, >45°C derating			
Cooling	SMART COOLING			
Elevation	<3000 M			
Noise (DB)	<45 DB			
Humidity	5% to 95% (Non-Condensing)			
Communication with BMS	RS485/CAN			
Protection Degree	IP65			
Inverter Weight (Kg)	33.6 Kg			
Inverter Dimension (mm)	422W x 699.3H x 279D mm (Wall mounted)			
Warranty	5 years (Standard) + 5 years (Optional)			